1. An integrated reflector and boom assembly, comprising:

a surface of stiff reflective sheet material;

a stiff grid having a first region for supporting said surface and a second region defining a boom, said second region being contiguous with said first region;

each of said first and second regions including a front face and a rear face, said front face of said first region being larger in area than said front face of said second region and having a profile to mate with said surface;

said surface being bonded to at least said front face of said first region;

said stiff grid further comprising a plurality of ribs; and wherein at least some of said ribs extend in one piece from said first region into said second region.

2. The integrated reflector and boom assembly as defined in claim 1, wherein said plurality of ribs define a triangular isogrid pattern, each of said plurality of ribs containing at least one interlocking slot with said interlocking slot being located at intersections between said ribs.

3. The integrated reflector and boom assembly as defined in claim 1, wherein at least a pair of ribs of said plurality of ribs extend in one piece through both said first and second regions.

4. The integrated reflector and boom assembly as defined in claim 1, wherein said surface further includes a portion that is bonded to said front face of said second region.

5. The integrated reflector and boom assembly as defined in claim 1, wherein surface of stiff reflective sheet material includes a three-dimensional curved surface portion; and wherein said front face of said

first region is of a curved profile that mates with said three-dimensional curved surface portion of said surface.

6. The integrated reflector and boom assembly as defined in claim 5, wherein said surface further includes a flat portion and wherein said flat portion is bonded to said front face of said second region.

7. The integrated reflector and boom assembly as defined in claim 6, wherein said plurality of ribs define a triangular isogrid pattern, each of said plurality of ribs containing at least one interlocking slot with said interlocking slot being located at intersections between said ribs; and wherein at least a pair of said ribs of said plurality of ribs extend in one piece through both said first and second regions.

8. The integrated reflector and boom assembly as defined in claim 7, further comprising: a backsheet of stiff sheet material, said backsheet being bonded to said rear face of each of said first and second regions.

9. The integrated reflector and boom assembly as defined in claim 8, wherein each of said facesheet and said plurality of ribs comprises a graphite composite material.

10. The integrated reflector and boom assembly as defined in claim 5, wherein said three-dimensional curved surface portion comprises a hypebolic geometry.

11. The integrated reflector and boom assembly as defined in claim 8, wherein each of said facesheet and said plurality of ribs comprises a Kevlar® composite material.

12. The integrated reflector and boom assembly as defined in claim 5, wherein said three-dimensional curved surface portion comprises a parabolic geometry.

13. An integrated reflector and boom assembly, comprising:

a facesheet;

a series of interlocking ribs defining a reflector section and a boom section, with said boom section being contiguous to said reflector section and covering a smaller area than said reflector section, said series of ribs being interlocked to form a single grid having an axis extending through both said reflector section and said boom section and front and rear faces;

said interlocking ribs further comprising:

a first plurality of straight ribs oriented in a first direction;

said first plurality of straight ribs including;

at least two ribs extending in one piece through both said reflector section and said boom section;

a second and third plurality of ribs;

said second plurality of ribs being oriented at a first predetermined angle relative to said first rib of said first plurality of ribs; and

said third plurality of ribs being oriented at a second predetermined angle relative to said first rib of said first plurality of ribs, said second predetermined angle being equal to said first predetermined angle and opposite in direction thereto;

an additional straight rib positioned in said boom section, said additional straight rib being oriented at right angles to and interlocked to said at least two ribs of said first plurality of straight ribs;

said second and third plurality of straight ribs extending through said reflector section with a minority of straight ribs in each of said second and third plurality of straight ribs also extending into said boom section; and

said facesheet being bonded to an edge of said first, second and third plurality of ribs located in said front face of said grid within said reflector section.

14. The integrated reflector and boom assembly as defined in claim 13, wherein said facesheet defines a curved reflecting surface.

15. The integrated reflector and boom assembly as defined in claim 14, wherein said curved reflecting surface comprises a parabolic surface.

16. The integrated reflector and boom assembly as defined in claim 14, wherein said curved reflecting surface comprises a hyperbolic surface.

17. An antenna comprising: a reflecting surface and a boom for supporting said reflecting surface, said reflecting surface and said boom being integrally formed in a unitary one-piece assembly and defining a paddle shape geometry.

18. The antenna as defined in claim 17 wherein said reflecting surface comprises a parabolic shape.

19. A deployable antenna comprising:

a first reflecting surface;

a second reflecting surface;

a first boom arm for supporting said first reflecting surface, said boom arm containing first and second ends, and supporting said first reflecting surface at said second end; and

said first reflecting surface and said first boom arm being integrally formed in a unitary one-piece assembly;

a second boom arm for supporting said second reflecting surface, said second boom arm containing first and second ends, and supporting said second reflecting surface at said second end; and

said second reflecting surface and said second boom arm being integrally formed in a unitary one-piece assembly;

a hinge, said hinge including first and second hinge flanges pivotally connected, said first and second hinge flanges being moveable over a predetermine maximum arc to a deployed position;

said first hinge flange being connected to said first end of said first boom arm; and

said second hinge flange being connected to said first end of said second boom arm, whereby moving said first and second hinge flanges to said deployed position carries said first and second boom arms to a deployed position, and positions said first reflecting surface and said second reflecting surface to a deployed position.

20. The deployable antenna as defined in claim 19 wherein said first reflecting surface comprises a parabolic surface and wherein said second reflecting surface comprises a hyperbolic surface.

21. The deployable antenna as defined in claim 19, wherein each of said reflecting surface and boom arm further comprise:

a surface of stiff reflective sheet material;

a stiff grid having a first region for supporting said surface and a second region defining a boom, said second region being contiguous with said first region;

each of said first and second regions including a front face and a rear face, said front face of said first region being larger in area than said front face of said second region and having a profile to mate with said surface;

said surface being bonded to at least said front face of said first region;

said stiff grid further comprising a plurality of ribs; and wherein at least some of said ribs extend in one piece from said first region into said second region.